

**KODAK***photo notes*for registered owners of the  
Kodak Reference Handbook  
and the  
Kodak Photographic NotebookFurther notes on the  
**NEW**  
**EKTACHROME**

The new fast Ektachrome films are now also available in 120 and 620 sizes in both Daylight Type and Type F. The Daylight Type, with an exposure index of 32, is about three times as fast as the older Ektachrome. Basic exposure for an average subject in bright sunlight is 1/50 second at  $f/11$ .

For best results, these new films should be used in fully adjustable cameras so that the proper exposure can be given. Simple *adjustable* cameras, such as the Kodak Duaflex  $f/8$ , can be used with new Ektachrome outdoors under favorable weather conditions. Like the other Ektachrome films except the sheet films, these new films are currently intended for processing (same times and temperatures) by either commercial processors or the user in Kodak Ektachrome Chemicals, Process E-2. Transparencies can be hand-viewed or projected, and color prints can be made from them.

For the simple nonadjustable box camera, we recommend Kodacolor

film, a negative-type film of wide exposure latitude from which inexpensive Kodacolor prints can be made.

The new, higher-speed Ektachrome permits snapshots in well daylighted interiors with  $f/4.5$  cameras. A good exposure meter properly used will help you get accurate exposures.

**Type F for Flash.** The artificial-light film is balanced for use with clear (not blue) wire-filled flash lamps, such as No. 5 or 25. The guide number for 1/50 second and No. 5 or 25 lamps in a 4- to 5-inch polished reflector is 110. A flash guide number table is included in the instruction sheet. With photoflood lighting, a Kodak Light Balancing Filter No. 82A is used. The photoflood exposure index is 16.

**Kodak Pola-Screen Use.** The higher speed of the new Ektachrome makes more practical than ever the use of a Pola-Screen, long used with color films to darken blue skies, reduce reflections, and increase color saturation.

**Don't Bake It.** As with all color films,

it is important to keep these films in a dry and cool-as-possible place. Definitely avoid the glove compartment or rear window shelf of a car. As with all films, and especially color films, it is important to *process as soon after exposure as possible*.

**Processing Tips.** For best results, follow carefully the processing instructions and the few tips below:

**Dissolve Chemicals Thoroughly.**

Mix the chemicals very carefully and thoroughly. Use clear, clean water even for the rinses. If the tap water is temporarily turbid, wait until it has cleared up before mixing solutions or processing. It may be desirable to install a filter in the line or on the tap. The temperature of the first rinse should be close to 75 F. In all washing operations, the water should be changed completely three times every minute. Follow the instructions carefully. For example, when using the pint size, measure a full pint of water into the mixing container before adding any chemicals. This is essential to correct solution and proper color balance. The resulting volume of solution will be a little more than a pint, so select a mixing vessel large enough for thorough stirring.

- When mixing the color developer, pour the liquid in the small bottle into a pint of water, then rinse the bottle  
2 thoroughly with part of the pint solu-

tion to make sure you use all of it. This liquid does not mix readily with water, but it is essential that you stir the solution until not even the smallest globules are visible and the solution is clear. Then, while stirring the solution, dribble in the powder from the large (component) envelope. When this powder is completely dissolved, add and dissolve the powder in the small envelope. Check the solution in good light to make sure everything is completely dissolved.

Avoid contaminating one solution with another. When using a single tank, this means careful attention to the rinsing and draining steps.

**Temperature Control Important.**

Use an accurate thermometer, such as the Kodak Process Thermometer, when mixing the solutions. Since some of the solutions are near the saturation point, they will not dissolve unless they are at the temperatures specified on the carton. They can be stored at room temperature if it does not fall below 60 F; otherwise, some of the ingredients may precipitate. It is best to use full, tightly stoppered bottles.

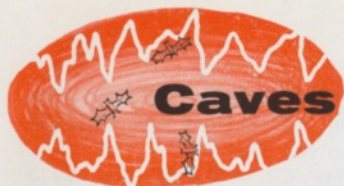
A timer with an audible signal helps avoid "overtime" development. Or, a good stunt, if you have a tape recorder, is to make up a tape to tell you when to agitate, rinse, change from one solution to another, etc; then, to break up the monotony in the darkroom, you can run music between the processing instructions.

The Kodak Day-Load Tank is ideal for processing 35mm Ektachrome Film. Loading and all subsequent steps are done in room light. The Day-Load Tank fills and empties

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# Caves Are Everywhere

(Well, Almost!)

Dotted here and there across this broad land of ours are many underground caves. We are speaking of the illuminated kind where you can be escorted around in safety, not the "spelunker's" favorite. Here is a real wonderland of pictures for those who know how. The often spectacular and certainly different sights in these caves are fair game for your camera, in black-and-white or color. Color film is necessary, of course, to reproduce the brilliant or pastel-colored onyx and gypsum formations. But effective pictures can be made in black-and-white, too, especially if the lighting brings out the shapes and textures of the formations.

**What Kind of Light?** There are, as usual, two schools of thought on what lighting to use. The available-light boys swear that existing light is the only light to use for the best in exhibition-type prints or color slides. They argue that cave owners have gone to great lengths to design and install artistic lighting which will make the most of each cave's salient points. This means long exposures with the camera on a tripod.

The flash boys are equally enthused about their system. They argue that flash is the most convenient lighting and that you can be surer of your

results. They further point out that most people go through these caves on conducted tours. As a group moves through the caves, the guide illuminates the section being viewed, then turns off the lights as the group moves forward. In such cases, there is seldom time for careful composing plus long exposures; flash is obviously the answer here. The management of some caves run photographic tours and allow time for picture-making. The guides are often well informed on vantage points, exposure, etc.

**Side Lighting for Quality.** Side lighting will bring out the depth and roundness of the formations. With flash, this calls for the use of an extension and either a clamp or an assistant to hold it. The technique for using extension flash, including a bare-bulb technique which would be ideal for the smaller rooms in a cavern, is explained in the Kodak Data Book "Flash Technique." Get one from your Kodak dealer and take it with you — it will pay off!

With existing light, you will have no control. However, you will find that, when side or back lighting is called for, it will be there.

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Notice how the shot below gains added interest because of the people included.



**Flashlight.** A flashlight, preferably a good strong one, is almost imperative. You will have many uses for it, including reading shutter settings and guide numbers; focusing on when held by a fellow traveler in dim light; in a few special cases where long exposures are used, "painting in" an area with light; and outlining the viewfinder frame. This last use requires an explanation. When sighting in very dim light or darkness, it's almost impossible to see the outlining edges of the finder frame to know just what area you are including in the picture. The finder frame can be outlined by shining across the front of the camera the beam from a flashlight held overhead. Try it in the dark to learn the proper angle.

**Accessory Lenses.** Telephoto and wide-angle lenses will help. In close

quarters, a wide-angle lens is often the only one that will give the composition you want.

In this respect, the 35mm lenses of the Kodak Stereo Camera are an asset because of both the field covered and the very deep range of focus.

**Composition.** Include people to add human interest, to show size relationship, to help in composition, and sometimes just to add a dash of color! This dash of color can be a bright red or yellow jacket, skirt, or slacks. Take along a few gaily colored items to use.

**Exposure.** Quite long exposures are required with existing light. Using Kodachrome Film, Type A, successful pictures have been made with from 30 seconds to 2 minutes at  $f/5.6$ . Since the lighting will undoubtedly be tungsten, the results will be some-

*(Continued on back cover)*

## Photographic Production of **SLIDES AND FILM STRIPS**



Photographic visual aids are used extensively in classrooms and for other teaching applications. There are times when a need arises for a specific presentation for which there is no existing slide set or filmstrip. Such a presentation can be prepared readily by using equipment which is usually available in most photographic darkrooms.

This Data Book is intended to help the photographer make the slide sets or filmstrips, once the original art work and photographs or color transparencies have been made. Making and copying the matched prints re-

quired for filmstrip production is described in detail. Suggestions are given for exposure determination by the use of exposure meters. Typical exposure times are given as a guide in the appropriate Data Sheet. Drawings and photographs of copy stands are included.

Increasing use is made of color in visual-aid presentations. Handling color transparencies in order to obtain satisfactory reproductions in the form of slides or filmstrips requires certain procedures which are unlike those used for black-and-white work. The preparation of contrast-reducing and color-correcting masks and exposure of duplicating film are described.



## Seen Any **MODERN** Movies Lately?

If you haven't seen any modern color movies made by earnest amateurs, you will undoubtedly be quite surprised and ask, "How long has this been going on?" Well, it's been developing right along with the improvement of color films and apparatus. In tune with today's more casual living and leisure time, today's movie makers are having a lot of fun.

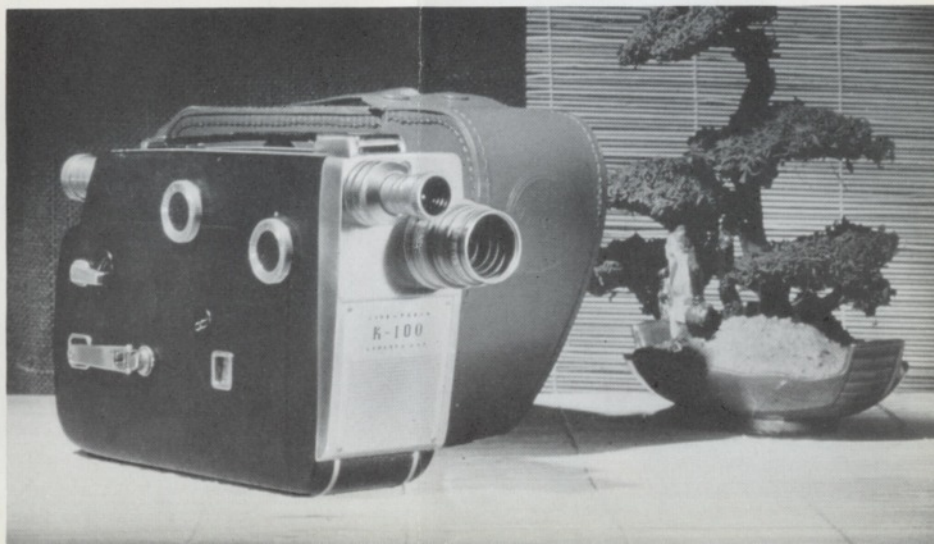
In general, they are getting away from the old notion that home movies are merely so many yards of animated snapshots. They have learned the few simple techniques which assure smoothness, continuity, and interest. Modern materials are capable of yielding high-quality pictorial work.

This is not to imply that they are trying to make Hollywood-type pictures, which would be neither possible nor desirable. A Hollywood film is the tremendously expensive end product of a large number of professional specialists, designed to entertain the largest possible audience.

Personal movies are completely different. They are exclusive and personal; they cost little; their prime purpose is to picture family or personal experiences, adventures, travels, achievements, and developments. They can be shown in full color on big screens whenever you wish.

In America, amateur movies are generally made on either 8 or 16mm film. Because a 16mm frame is four times as large as an 8mm frame, 16mm film is the better choice for auditorium or other large-audience use. But for most home projection, the 8mm size is quite satisfactory, and, of course, the film costs less. Cine-Kodak camera prices start as low as \$37.50 for the Brownie Movie Camera,  $f/2.7$  Lens. Kodak movie-projector prices start at \$62.00 for the Brownie Movie Projector,  $f/1.6$ . Kodak equipment will go along with you as far as you want to go in the 16mm line. The new Cine-Kodak K-100 Camera is shown here.

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# For Variety

## Tone Your Prints Intermediate Hues

Rich red-brown or pleasing warm brown hues can be produced on warm-tone papers, such as Kodak Opal and Ektalure Papers, by mixing two standard Kodak toners — Kodak Selenium Toner and Kodak Brown Toner. There is practically no effect with cold-tone paper, such as Kodabromide. The table below gives complete information for toning prints with the combination of toners. The *used* solution will work satisfactorily during one day, but it will not keep overnight. The *unused* mixed solu-

tion will keep for about a week.

For toning in the first mixture (for red-brown tones) described in the table below, expose and develop the prints normally; in the second (for warm brown tones), develop about 25 percent longer than normal to compensate for a slight reducing action in the toner. Fix the prints thoroughly, using two fixing baths; rinse well; treat for about two minutes in a two percent solution of Kodak Balanced Alkali; and wash thoroughly before toning.

COMBINATION OF KODAK SELENIUM AND BROWN TONERS		
Components	For Rich, Red-Brown Tones (Warmer than Selenium)	For Warm Brown Tones (Colder or more purple than Brown Toner)
Kodak Selenium Toner Kodak Brown Toner Kodak Balanced Alkali Water to Make	2½ oz (19 cc) 10 oz (75 cc) 4 oz (30 gm) 1 gal (1000 cc)	¼ oz (2 cc) 14 oz (100 cc) 1 oz (8 gm) 1 gal (1000 cc)
Tone for	about 3 minutes	about 7 minutes
Rinse for	30 seconds	30 seconds
Clear in sodium bisulfite solution (1 oz per qt of water)	1 minute	1 minute
Harden, if necessary. Wash thoroughly.		
Capacity of toning bath without replenishment (No. of 8 x 10-in. prints per gal)	80	40
Replenisher (Selenium Toner, Water)	1:5	1:20
Replenishment per ten 8 x 10-in. prints	1 oz (30 cc)	1 oz (30 cc)
Capacity replenished	150	150



# Potpourri

✓ Kodachrome Prints 3X now have  $\frac{1}{4}$ -inch white borders. These prints are  $3\frac{1}{2} \times 5$  inches, including the border, and retail for 75 cents each.

✓ Components of the Kodak Ektachrome Processing Kit, Process E-2, will *not* be available for the pint-size kit as stated in the No. 2 *Photo Notes*. Components of the  $\frac{1}{2}$ - and  $3\frac{1}{2}$ -gallon kits are available.

✓ A cream white, lustre, tapestry, double weight paper (X) is being added to the Kodak Ektalure Paper line. The sizes and prices are the same as for other double weight Ektalure surfaces.

✓ Kodak Opal Paper, V, is being used with great success by photographers making prints for television use. The suede surface of this paper

adds considerably to the illusion of depth and provides a surface which is virtually reflection-free. This is of prime importance for this purpose.

✓ *Know your film size—check it carefully when you buy film.* Correspondence reveals that many people do not always get the right sizes of film for their cameras, especially on trips.

✓ A Model C version of the Kodak Pony 135 Camera is now available. Improvements include a Lumenized Kodak Anaston Lens, 44mm  $f/3.5$ ; a fixed lens tube; an exposure selector for Kodachrome and Kodak Ektachrome Films; an improved Kodak Flash Shutter with a  $1/300$ -second speed; speeds selected by a knurled ring; improved appearance. The low list price including tax: \$33.75.

Four station wagons are used in New York City for police photo work. When one of these "photo wagons" arrives at the scene of the crime, the appropriate equipment is readily found in its special compartment even by someone unfamiliar with the setup.



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### **Ektachrome Notes**

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quickly and neatly. Once on the reel, the film should be left on it for the entire processing cycle, including the reversal exposure. For this exposure, the reel assembly is held a foot or so from a No. 2 photoflood for 15 sec-

onds. Hold the film in front of the lamp, *not* over it. Avoid splashing any liquid on the hot lamp. To agitate, merely twirl the large reel collar in the direction of the arrow for 5 seconds every minute.

A Nikor or similar tank also is suitable for processing 35mm film as well as other roll-film sizes.

### **Caves**

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what warm without a filter. For cooler results, use one of the No. 82 (Bluish) series of Kodak Light Balancing Filters. Your photoelectric exposure meter may not be very useful, either because the light is too dim to register effectively on the meter or because you cannot hold the meter close enough to the subject to get a reading. With even one accurate exposure-meter reading, use it as a guide in judging others. Otherwise, ask your guide's advice or estimate the exposure and then bracket it (make one

exposure as estimated, one with 1 stop more exposure, and one with 1 stop less).

With flash, use the regular guide numbers, modifying the exposure a half stop more or less as required by the reflectivity of the subject and the size of the "room." No. 5 or 25 flash lamps are generally used and provide enough light except for the most distant views in large areas, when a long exposure plus a flash exposure is usually very effective. Try it!

So, have fun, keep your gear dry, and bring home really different shots!

**SALES SERVICE DIVISION**

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